

Session

Get basic information of session id=\$id

URI	session/\$id/
method	GET
parameters	none
action	(none)
return	<ul style="list-style-type: none">• success:<ul style="list-style-type: none">◦ HTTP 200 (OK): basic information of this session• error:<ul style="list-style-type: none">◦ HTTP 404 (not found): "Session with id=\$id does not exist"

Create a new session

URI	session/
method	POST
parameters	<ul style="list-style-type: none">• name: string "name of the session"• (optional) description: string "description of the session"• (optional) dataset: string "base dataset"
action	create_session
return	<ul style="list-style-type: none">• success:<ul style="list-style-type: none">◦ HTTP 201 (created): basic information of this session• error:<ul style="list-style-type: none">◦ HTTP 403 (forbidden): "Cannot create session now"

Update information of a session

URI	session/\$id
method	PUT
parameters	none
action	(none)
return	<ul style="list-style-type: none">• success:<ul style="list-style-type: none">◦ HTTP 204 (No Content): "Information has been updated"

	<ul style="list-style-type: none"> ● error: <ul style="list-style-type: none"> ○ HTTP 404 (not found): "Session with id=\$id does not exist" ○ HTTP 403 (forbidden): "You are not authorized to update this session"
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Datasets

List available datasets

URI	dataset
method	GET
parameters	none
action	(none)
return	<ul style="list-style-type: none"> ● success: <ul style="list-style-type: none"> ○ HTTP 200 (OK): A list of dataset descriptions ○ HTTP 204 (No content): "No dataset available"

Model Configuration

Model Configuration Operations

Create a new model configuration under a session

URI	session/\$id/
method	POST
parameters	none
action	create_modelconf
return	<ul style="list-style-type: none"> ● success: <ul style="list-style-type: none"> ○ HTTP 201 (created): basic information of this session ● error: <ul style="list-style-type: none"> ○ HTTP 403 (forbidden): "Cannot create model configuration now"

Update model configuration information

URI	session/\$id/modelconf/\$confid
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method	PUT
parameters	conf: JSON string of configurations
action	update_modelconf
return	<ul style="list-style-type: none"> • success: <ul style="list-style-type: none"> ◦ HTTP 204 (No content): "Model configuration information has been updated" • error: <ul style="list-style-type: none"> ◦ HTTP 404 (not found): "The model configuration does not exist" ◦ HTTP 403 (forbidden): "Model configuration cannot be modified"

List all model configurations

URI	session/\$id/modelconf/
method	GET
parameters	none
action	(none)
return	<ul style="list-style-type: none"> • success: <ul style="list-style-type: none"> ◦ HTTP 200 (OK): A list of model configuration information ◦ HTTP 204 (No content): "No model configuration exists"

Delete an existing model configuration

URI	session/\$id/modelconf/\$confid
method	DELETE
parameters	none
action	(none)
return	<ul style="list-style-type: none"> • success: <ul style="list-style-type: none"> ◦ HTTP 204 (No content): "Model has been successfully deleted" • error: <ul style="list-style-type: none"> ◦ HTTP 403 (forbidden): "Cannot create model configuration now"

Dataset Operations

Attach a dataset to the model

URI	session/\$id/modelconf/\$confid
method	POST
parameters	<ul style="list-style-type: none">• name: [name of the dataset]
action	attach_dataset
return	<ul style="list-style-type: none">• success:<ul style="list-style-type: none">◦ HTTP 200 (OK): the dataset basic information• error:<ul style="list-style-type: none">◦ HTTP 403 (forbidden): "Cannot create model configuration now"

Get dataset information

URI	session/\$id/modelconf/\$confid/dataset
method	POST
parameters	none
action	(none)
return	<ul style="list-style-type: none">• success:<ul style="list-style-type: none">◦ HTTP 200 (OK): the dataset basic information• error:<ul style="list-style-type: none">◦ HTTP 403 (forbidden): "Cannot create model configuration now"

List data records

URI	session/\$id/modelconf/\$confid/dataset
method	GET
parameters	<ul style="list-style-type: none">• id: id list of the requested id (if not specified, query all data)<ul style="list-style-type: none">◦ *format: ((\d_+)\d• type:<ul style="list-style-type: none">◦ labeled: return all labeled instances◦ unlabeled: return all unlabeled instances◦ deleted: return deleted instances◦ all: all types of instances

	<ul style="list-style-type: none"> ● filter: <ul style="list-style-type: none"> ○ all: return all query results ○ range: return a range of result records ○ page: return a page of result records ● range: <ul style="list-style-type: none"> ○ \d(-)\d (filter=range): record start record end ○ \d(-)\d (filter=page): records in a single page # page
action	list_instance
return	<ul style="list-style-type: none"> ● success: <ul style="list-style-type: none"> ○ HTTP 200 (OK): instance list ○ HTTP 204 (No content): "No instances for the query"

Manipulate data instance(s)

URI	session/\$id/modelconf/\$confid/dataset
method	PUT
parameters	<ul style="list-style-type: none"> ● num: number of instances to be updated ● new_data: JSON string containing all instances and fields to be updated
action	update_instance
return	<ul style="list-style-type: none"> ● success: <ul style="list-style-type: none"> ○ HTTP 204 (No content): "Data have been updated" ● error: <ul style="list-style-type: none"> ○ HTTP 403 (forbidden): "Cannot create model configuration now"

Drop data instances from current model configuration

URI	session/\$id/modelconf/\$confid/dataset
method	DELETE
parameters	<ul style="list-style-type: none"> ● id: id of the data to be deleted (can be a JSON array for batch-drop)
action	drop_instance
return	<ul style="list-style-type: none"> ● success: <ul style="list-style-type: none"> ○ HTTP 204 (No content): "Data have been updated" ● error:

	<ul style="list-style-type: none"> ○ HTTP 403 (forbidden): “Cannot create model configuration now”
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Classification Model

Set model used for the configuration

URI	session/\$id/modelconf/\$confid/
method	POST
parameters	<ul style="list-style-type: none"> ● model_type: classifier type <ul style="list-style-type: none"> ○ svm: support vector machine
action	set_model
return	<ul style="list-style-type: none"> ● success: <ul style="list-style-type: none"> ○ HTTP 204 (No content): “New model has been set up” ● error: <ul style="list-style-type: none"> ○ HTTP 400 (bad request): “invalid parameter error”

Set input parameters of the model

URI	session/\$id/modelcnf/\$confid/model
method	POST
parameters	<ul style="list-style-type: none"> ● c: C value for C-support vector machine
action	set_param
return	<ul style="list-style-type: none"> ● success: <ul style="list-style-type: none"> ○ HTTP 204 (No content): “New input parameters has been set up” ● error: <ul style="list-style-type: none"> ○ HTTP 400 (bad request): “invalid parameter error” ○ HTTP 404 (not found): “model has not been created”

Train model

URI	session/\$id/modelcnf/\$confid/model
method	POST
parameters	<ul style="list-style-type: none"> ● return_result: boolean value for whether return data list after training

action	train
return	<ul style="list-style-type: none">● success:<ul style="list-style-type: none">○ HTTP 200 (OK): if return_result is set to true, the data list will be returned after training.● error:<ul style="list-style-type: none">○ HTTP 400 (bad request): "invalid parameter error"○ HTTP 404 (not found): "model has not been created"